

The on-screen version of the Collider-Accelerator Department Procedure is the Official Version. Hard copies of all signed, official, C-A Operating Procedures are kept on file in the C-A ESHQ Training Office, Bldg. 911A.

BOOSTER SWEEP CHECKLIST

(Team Leader) _____ (Operator 2) _____

Time: _____ Date: _____

Warning:

IF any personnel are encountered during the sweep, **THEN** determine whether their work will be completed in a short time. **IF** the work will take a long time, **THEN** contact the OC to see if the sweep should be aborted. **IF** the work will be completed in a short time, **THEN** write the name(s) of the workers at the end of the checklist and verify that they leave the enclosure **WITH** the sweep team.

Prerequisites

- Two Operators to perform the sweep
- Key: H705 (sweep key), CAT24, H693 (security console), DO18 (Plug door)
- C-A-ATT.4.56.f- BOOSTER SWEEP CHECKLIST and map (2 pages plus map)
- TLD Badge and Self Reading Dosimeter
- Controlled or Restricted Access LOTO has been performed (C-A OPM 2.6.1 Attachments c or d)
- Two portable radios
- Booster Plug door is closed
- AGS beam stops 1 & 2 are closed (see MCR_2-2G7, G8)
- TTB beam stops 1 & 2 are closed (see MCR_2-2G3, G4)

Note:

During the Booster sweep, verify that all ventilation gratings in the tunnel are securely fastened and that no persons are behind the grating in the ventilation shaft.

Warning:

The sequential sweep requires a colorless "ready" light to be lit on EACH Reset Station BEFORE it can be reset. A "ready" light will not be lit if the previous station has not been reset. When reset with the H705 key the amber "reset" light should be lit. IF no ready light is lit and a Reset Station cannot be reset THEN the sweep must be aborted and a new sweep must be initiated. In this case, Booster Controlled Access should be cycled from Restricted Access to Controlled Access in the MCR, the sweep gate should be opened and closed, and the sweep performed again from the beginning.

Check

IN THE MCR

- ___ 1. IF the Booster Plug Door was not closed (see Security PC in MCR), THEN follow [C-A-OPM 4.57](#) to close it.
- ___ 2. Team Leader makes an announcement using the P.A. that The Booster is now on Controlled Access. Exit using the Booster Man-lock gate.
- ___ 3. Team Leader shall switch the Booster Ring to Controlled Access by turning the H693 key in key-switch #1 (left) at MCR_2-1IJ WHILE SIMULTANEOUSLY depressing the right (Controlled Access) button above key-switch #1.
- ___ 4. Team Leader shall use the Security PC (Status /Booster) to verify that no interlocks are observed from the Booster Escape Hatch Door or Crash Buttons.
IF the Booster Escape Hatch Door is Not Reset, THEN a Berm sweep is necessary, if called for by the appropriate RSC checklist.
IF a Crash indication is observed, THEN check ALL Crash Buttons in the Booster BEFORE attempting the sweep.
- ___ 5. Team Leader resets the Booster Plug door by turning the H705 key in the key-switch (Security Box to the right of the plug door). Observe the amber reset lamp glow.
- ___ 6. Team Leader opens the outside Booster Man-Lock gate using the H705 key and both operators enter.

CONTINUED ON REVERSE SIDE

- ___ 7. Both Operators pass through the Sweep Gate at F5 and close the gate behind them and turn the sweep sign to indicate a sweep in progress. IF the Sweep Gate is not closed THEN you will get no ready light at reset station #1.
 - ___ 8. Team Leader resets station #1 (behind the Sweep Gate) by turning the H705 key in the key-switch. Observe the amber reset lamp glow.
 - ___ 9. Both operators sweep under BAF transport line
 - ___ 10. Both operators sweep to reset station # 2 opposite D4 Dipole.
 - ___ 11. Team Leader resets station #2 by turning the H705 key in the key-switch. Observe the amber reset lamp glow.
 - ___ 12. Operator 2 stands static watch in the alcove next to station #2 while Team Leader goes downstream to the alcove leading to the escape hatch, climbs the stairs and resets station #3.
 - ___ 13. Team Leader resets station #3 (behind the Sweep Gate) by turning the H705 key in the key-switch. Observe the amber reset lamp glow.
 - ___ 14. Team Leader sweeps out the escape hatch shaft and rejoins Operator 2.
 - ___ 15. Both Operators sweep into the D3 kicker alcove.
 - ___ 16. Team Leader checks under the floor gratings for personnel.
 - ___ 17. Operator 2 stands static watch while Team Leader goes under the magnet and searches the far side of the alcove including the space under the floor gratings.
 - ___ 18. Team Leader resets station #4 by turning the H705 key in the key-switch. Observe the amber reset lamp glow.
 - ___ 19. Team Leader sweeps under the magnet and rejoins Operator 2.
 - ___ 20. Both Operators sweep upstream to the injection area and pass under the LTB beam-line.
 - ___ 21. Team Leader crosses under the Main Magnet and resets station #5 located on the outside of C4 girder by turning the H705 key in the key-switch. Observe the amber reset lamp glow.
 - ___ 22. Team Leader sweeps out from behind the magnet and rejoins Operator 2.
 - ___ 23. Operator 2 stands static watch as Team Leader proceeds to the upstream end of the LTB line to the beam pipe penetration in the wall.
 - ___ 24. Team Leader searches around the shield blocks and equipment racks and resets station #6 by turning the H705 key in the key-switch. Observe the amber reset lamp glow.
 - ___ 25. Team Leader sweeps back to rejoin Operator 2.
 - ___ 26. Both Operators sweep upstream and cross under section 29 of the TTB beam-line.
 - ___ 27. Both Operators sweep upstream to reset station #7 opposite A4 Dipole.
 - ___ 28. Team Leader resets station #7 by turning the H705 key in the key-switch. Observe the amber reset lamp glow.
 - ___ 29. Both Operators sweep upstream to Labyrinth Gate A. IF Labyrinth Gate A is not reset THEN, Operator 2 shall stand static watch at the gate while Team Leader enters the Labyrinth and resets Booster Labyrinth Gate B. Team Leader then sweeps out the Labyrinth, closes and resets Labyrinth Gate A, and rejoins Operator 2. Note: The Operator has TWO minutes to complete the sweep of the Labyrinth AFTER Labyrinth Gate B is reset.
 - ___ 30. Both Operators sweep to RF Station A3.
 - ___ 31. Operator 2 stands static watch at A3 while Team Leader goes behind the Booster Magnet A2 and resets station #8 by turning the H705 key in the key-switch. Observe the amber reset lamp glow.
 - ___ 32. Team Leader sweeps out from behind the magnet and rejoins Operator 2.
 - ___ 33. Operator 2 maintains static watch at Dipole A2 as Team Leader proceeds to station #9 at the BTA penetration in the shield blocks.
 - ___ 34. Team Leader resets station #9 by turning the H705 key in the key-switch. Observe the amber reset lamp glow.
 - ___ 35. Team Leader rejoins Operator 2.
 - ___ 36. Both Operators scan the shield blocks atop the Labyrinth and the cable trays for personnel.
 - ___ 37. Both Operators sweep under the BTA.
 - ___ 38. Operator 2 stands static watch at reset station # 11 while Team Leader proceeds to station #10.
 - ___ 39. Team Leader resets station #10 by turning the H705 key in the key-switch. Observe the amber reset lamp glow.
 - ___ 40. Team Leader checks all the trenches along the wall.
 - ___ 41. Team Leader rejoins Operator 2 at station #11.
 - ___ 42. Team Leader resets station #11 by turning the H705 key in the key-switch. Observe the amber reset lamp glow.
 - ___ 43. Both Operators sweep out the Booster Man Lock Gates (inner and outer) and close the doors behind them.
 - ___ 44. Team Leader resets station #12 (to the left of the Man Lock Gate) by turning the H705 key in the key-switch. Observe the amber reset lamp glow.
 - ___ 45. Team Leader resets the Man Lock Gate by turning the H705 key in the key-switch. Observe the gate reset lamp glow.
 - ___ 46. Team Leader contacts an Operator in the MCR to verify that Security PC shows the Booster gates are reset.
- IN THE MCR**
- ___ 47. Team Leader inserts but does not capture H705 Key in the Reset/Enable captive key panel at MCR_2_1 or gives the keys to the OC.
 - ___ 48. After verifying that all of the required information is filled out, Team Leader files the checklist in Document 29 and stores the keys in the Captured Key Locker above MCR_2.

BOOSTER RING SWEEP

